

Amendment and Response  
U.S.N.: 08/922,263  
Page 3 of 18-

The Office Action suggests that the instant application should be amended to reflect the fact that it is a divisional. Applicant confirms, through this paper, the cancellation, without prejudice, of claims 54-59. Applicant also notes that, if a new application is to be filed pursuing the subject matter of claims 54-59, the new application will be filed as a divisional application. But Applicant respectfully submits that there seems to be no need to do so in the instant application.

**1. Rejections of Claims 1, 4-12, 14, 15, 17, and 60-63 over Chapelon, Colman and Yock**

Claims 1, 4-12, 17, and 63 are rejected under 35 U.S.C. § 103(a) over United States Patent No. 5,601,526 to Chapelon et al. ("Chapelon") in view of Coleman et al., "Ultrasound in Med. & Biol.," (1992) Vol. 18, No. 3, p. 267-81 ("Coleman"). Claim 14, which depends from claim 1, is rejected under 35 U.S.C. § 103(a) over Chapelon in view of Coleman and further in view of United States Patent No. 5,000,185 to Yock ("Yock"). Claims 15 and 60-62 are rejected under 35 U.S.C. § 103(a) over Chapelon, in view of Coleman, and further in view of United States Patent No. 4,893,614 to Takayama et al. ("Takayama").

Claim 1 is the only independent claim at issue, and recites a method of generating light inside a mammalian body for a medical purpose. The method includes the steps of placing, inside a mammalian body, at least a distal portion of an interventional device that includes a sonoluminescent light module, and generating a sonoluminescent light inside the body.

Chapelon describes a device that delivers ultrasonic waves to treat tissue in a mammalian body. The embodiments described in Chapelon are largely extracorporeal (*see* col. 7, lns. 17-26). To the extent there is any intracorporeal application, in certain embodiments described in Chapelon, a "physically independent" cooling device is insertable into a cavity (e.g. rectum and urethra) of a patient to prevent overheating of the target tissue while the device responsible for generating and delivering the ultrasonic waves remains outside the body (col. 12, ln. 63-col. 13, ln. 1, and FIG. 9).

Coleman reports studies of acoustic emission from cavitation in the field of an extracorporeal shock wave lithotripter (p. 267, "Abstract"). To confirm that the detected acoustic

Amendment and Response  
U.S.S.N.: 08/922,263  
Page 4 of 18

signal actually arises from cavitation, Coleman describes using light detection through a photomultiplier tube as a positive control (*see* p. 268, left column).

Applicant respectfully traverses the rejection on the following grounds. First, because Chapelon does not recognize any sonoluminescent result in its disclosure, the Office Action essentially argues that Coleman shows that sonoluminescence is inherent in the method described in Chapelon. However, Coleman does not supply a logical basis for such a proposition. Coleman states that “[a]ny light emission ... is taken as independent evidence that cavitation is present” (p. 268, left column). Merely because one skilled in the art recognizes that cavitation can be inferred from light emission does not mean that the same holds true in the opposite direction, i.e., that cavitation *necessarily* leads to light emission. When extrinsic information is used to supply descriptive matter missing from a primary reference, it must be clear that “the missing descriptive matter is *necessarily* present in the thing described in the reference....” Continental Can Co. V. Monsanto Co., 948 F.2d 1264, 1268-69 (Fed. Cir. 1991) (emphasis added). The Federal Circuit has repeatedly warned against basing inherency on conjectures: “Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient.” *Id.* at 1269 (quoting In re Oelrich, 666 F.2d 578, 581 (CCPA 1981)) (emphasis original).

Coleman particularly takes notice of the unpredictability in the mechanisms that lithotripsy devices interact with tissue and stone in the body (p. 267, left column). Coleman further describes that others skilled in the art have attributed inhibition of cavitation under *in vivo* conditions to the high tensile strength of blood (p. 267, right column). Coleman’s experiment was conducted using an extracorporeal lithotripter in a tank filled with water. Through its own experiment, Coleman observes a 50% drop in signal amplitude when switching the conducting medium from tap water to carbonated water (p. 279, right column), further highlighting the multitude of variables that need to be tested in order to produce the desired cavitation effect, especially when repeating *in vitro* experiments under *in vivo* conditions.

Second, both references teach away from their combination, certainly offering no suggestion or motivation to the combination. *See* MPEP 706.02(J). On one hand, Chapelon specifically claims that the goal of its invention is to limit or avoid the cavitation effect while

Amendment and Response  
U.S.S.N.: 08/922,263  
Page 5 of 18-

relying more on the thermal effect of an ultrasound system (*see* col. 1, ln. 57-col. 2, ln. 7). And Coleman's studies deal exclusively with the cavitation effect. On the other hand, Coleman concludes that the quality of cavitation effect may well influence the safety and performance of a lithotripter (p. 280, "Conclusions"). Particularly given Coleman's notion about the unpredictability of repeating its experiment under *in vivo* conditions, the reference discourages, rather than motivates, one skilled in the art from modifying Chapelon's method to expand and explore medical benefits inside the body that may derive from the cavitation effect.

The third reference, Yock, describes a method that involves rotating and translating an ultrasonic transducer carried at the distal end of a catheter after being inserted into a blood vessel for ultrasonic imaging. Yock does not teach or suggest what Chapelon and Coleman lack with respect to claim 1. Therefore, a rejection under § 103 over claim 14 with the addition of Yock cannot be sustained either.

The fourth reference, Takayama, describes an extracorporeal lithotripter including a pseudo-ellipsoidal shaped housing filled with liquid. A shock wave is generated at a first focus of the pseudo-ellipsoid, resulting in impact at the second focus where the calculus is positioned ("Abstract"). Similarly to Chapelon, Takayama does not teach or suggest any sonoluminescent effect in the use of a shock-wave lithotripter. Therefore, Takayama does not supply the foundation needed for concluding that production of sonoluminescent light, as recited in instant claim 1, is inherent in the method described in Chapelon.

For the above reasons, Chapelon, Coleman, Yock, and Chapelon, taken individually or in combination, do not teach or suggest the method recited in the instant claim 1. Applicant respectfully requests the reconsideration and withdrawal of the rejections against claim 1 and its dependent claims.

Amendment and Response  
U.S.S.N.: 08/922,263  
Page 6 of 18

## **2. Rejections of Claims 20-30, 41-43, and 52 over Schubert**

Claims 20-30, 41-43, and 52 are rejected under 35 U.S.C. § 102(b) over United States Patent No. 3,593,706 to Schubert ("Schubert").<sup>1</sup> Claim 44 is also rejected under 35 U.S.C. § 103(a) over Schubert.

Claims 20 and 41 are the only independent claims at issue. Both claims recite a method of generating light inside a mammalian body. Claim 20 involves the use of an arc lamp, and claim 41 involves the use of a spark gap module.

Schubert describes a flexible gastroscope having an illumination source for observation through an optic fiber and a U-shaped flash tube for photographing interested area after observation. Schubert does not teach or suggest either the use of an arc lamp (claim 20) or the use of a spark gap module (claim 41). The specification of the instant application provides:

An arc lamp is an electric lamp in which light is produced by an arc made when current flows through ionized gas between two electrodes (p. 6, lns. 26-28).

...

The spark gap module 121 operates in a way similar to the arc lamp of FIG. 2A, except that the cap does not necessarily have to be conductive in order to generate an emission when the current flow is established at the onset of discharge (p. 14, lns. 2-4).

The illumination source described in Schubert is an incandescent lamp, providing light for viewing through an optic fiber (col. 1, lns. 10-15). The flash tube described in Schubert is used for flash photography (col. 1, lns. 49-63). Accordingly, Schubert does not teach or suggest either the arc lamp recited in instant claim 20 or the spark gap module recited in instant claim 41. Applicant respectfully requests the reconsideration and withdrawal of the rejections under § 102 against claims 20, 41, and their dependent claims 21-30, 42, 43, and 52.

Claim 44 indirectly depends from claim 41. As described above, Schubert does not teach or suggest all the limitations of claim 41. Accordingly, a rejection under § 103 against a

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<sup>1</sup> The serial number for Schubert does not appear in the Office Action. The missing information was provided by the Examiner in a voicemail message on November 7, 2002.

Amendment and Response  
U.S.S.N.: 08/922,263  
Page 7 of 18-

dependent claim of claim 41 cannot be sustained. Applicant respectfully requests the reconsideration and withdrawal of the rejection under § 103 against claim 44.

**3. Rejections of Claims 32-36 and 40 over Chen**

Claims 32 and 36 are rejected under 35 U.S.C. § 102(e) over United States Patent No. 5,800,478 to Chen et al. ("Chen"). Claims 32-35 and 40 are also rejected under 35 U.S.C. § 103(a) over Chen.

Claim 32 is the only independent claim at issue, and is amended herein. Amended claim 32 recites a method of generating light inside a mammalian body. The method includes the step of placing, inside a mammalian body, at least a distal portion of an interventional device where the distal device portion includes a fluorescent light source that has a rigid gas-containing tube. The method also includes the steps of electrically connecting the fluorescent light source through a proximal end of the interventional device to an energy source, and causing the light source to generate a fluorescent light inside the body.

Chen describes a probe used to provide photodynamic therapy inside a patient. The probe described in Chen can have a plurality of light sources mounted on a flexible substrate. Chen does not disclose a rigid gas-containing tube in its probe, a limitation that has been added to claim 32. Therefore, the rejections under § 102 against claim 32 and its dependent claim 36 have been overcome by the amendment.

With regard to the rejections under § 103, Chen teaches away from modifying its probe to incorporate the missing rigid gas-containing tube limitation because Chen's probe is expressly designed to be flexible, permitting it to be bent, folded or rolled inside the body (Abstract, col. 2, lns. 10-col. 3, ln. 54). Chen repeatedly emphasizes the criticality of keeping its probe flexible. Accordingly, Applicant respectfully submits that the rejection under § 103 against claim 32 and its dependent claims 33-35 and 40 have been overcome by the amendment.

Accordingly, Applicant respectfully submits that the above rejections under 35 U.S.C. §§ 102 and 103 have been overcome and should be withdrawn.

Amendment and Response  
U.S.S.N.: 08/922,263  
Page 8 of 18

#### **4. Rejection of Claims 37-39 over Chen and Sinofsky**

Claims 37-39 are rejected under 35 U.S.C. § 103(a) over Chen in view of United States Patent No. 5,100,429 to Sinofsky et al. ("Sinofsky").

Claims 37-39 all depend from amended claim 32. As described above, Chen does not disclose or suggest all the limitations of amended claim 32, e.g., including a rigid gas-containing tube in the light source. Sinofsky describes how to form an endovascular stent by curing a collagen-based material on the outer surface of an inflatable balloon. Sinofsky does not supply what Chen lacks with respect to amended claim 32, e.g. the use of a rigid gas-containing tube as part of a light source, as Sinofsky describes delivering laser energy, through optic fibers, to its distal balloon in order to cure the collagen-based material (col. 5, lns. 47-49). Accordingly, Applicant respectfully submits that the rejections under § 103 against claim 37-39 have been overcome by the instant amendment to claim 32 and should be withdrawn.

#### **5. Rejections of Claims 47-50 and 53 over Furihata**

Claims 47, 49, and 53 are rejected under 35 U.S.C. § 102(b) over United States Patent No. 3,866,602 to Furihata ("Furihata"). Claims 48 and 50 are also rejected under 35 U.S.C. § 103(a) over Furihata.

Claim 47 is the only independent claim at issue, and is amended through the instant Amendment to incorporate all the limitations of claims 49 and 50, both of which are canceled. The amended claim 47 recites a method of generating light inside a mammalian body. The method includes the step of placing, inside a mammalian body, at least a distal portion of an interventional device where the distal device portion includes an incandescent lamp. The lamp has a housing with a pair of electrodes inside the housing and connected by an oxidizing filament. The housing is also filled with a gas capable of generating light of a predetermined color. The method also includes the steps of electrically connecting the incandescent lamp through a proximal end of the interventional device to an energy source, and causing the incandescent lamp to generate short duration, high intensity light waves of the predetermined color for a medical purpose.

Amendment and Response  
U.S.S.N.: 08/922,263  
Page 9 of 18-

Furihata describes an endoscope installed with a camera for photographing an image corresponding to the interior wall of a body cavity. An illumination lamp 29 is provided at the distal portion of the endoscope and has one filament providing illumination for viewing through an eyepiece, and another filament providing light for photographing the body cavity being observed (col. 3, lns. 6-11). Furihata does not teach or suggest use of gas-filled housing and oxidizing filament to generate light waves of a predetermined color, as recited in the amended claim 47. As the instant specification describes, a colored light may include, e.g., substantially blue and UV light energy, which has specific advantages in medical procedures such as photodynamic therapy or tissue spectroscopy (p. 11, lns. 5-20, and p. 14, ln. 24-p. 15, ln. 2). Furihata is silent on any medical application of colored light, and therefore does not provide any motivation to modify its device or method by incorporating a gas-filled housing and an oxidizing filament. Indeed, Furihata teaches away from such modification as the illumination lamp provides light for either direct observation by a naked eye or general photography, both of which favor the entire spectrum of visible light.

Accordingly, Applicant respectfully submits that the rejections under § 102 over claims 47 and its dependent claim 53 have been overcome by the instant amendment and should be withdrawn. Applicant also submits that the rejection under § 103 over claim 48, which depends from amended claim 47, should be reconsidered and withdrawn. Rejections over claims 49 and 50 have been rendered moot as both claims have been canceled through this paper.

#### **INFORMATION DISCLOSURE STATEMENT (IDS)**

Applicant notes again that initialed copies of PTO-1449 forms for IDSs and Supplemental IDSs submitted by Applicant on September 2, 1997, October 31, 1997 and June 3, 1998, together listing references AA-AAZ, BA-BT, and CA-CM, have not been returned and therefore respectfully requests such action by the Examiner. Copies of the these 1449 forms are submitted along with this paper for the Examiner's convenience.

#### **CONCLUSION**

Applicant requests that the Examiner reconsider the application and claims in light of the foregoing Amendment and Response, and respectfully submits that the

Amendment and Response  
U.S.S.N.: 08/922,263  
Page 10 of 18

pending claims (i.e., 1, 4-12, 14, 15, 17, 20-30, 32-44, 47, 48, 52, 53, and 60-63), as amended, are in condition for allowance. If, in the Examiner's opinion, a telephonic interview would expedite the favorable prosecution of the instant application, the undersigned attorney would welcome the opportunity to discuss any outstanding issues, and to work with the Examiner toward placing the application in condition for allowance.


A petition and fee for a one-month Extension of Time for Response is submitted herewith. Applicant believes that no additional fees are necessitated by the instant Amendment. However, in the event that any additional fees are due, the Commissioner is hereby authorized to charge any such fees to Attorney's Deposit Account No. 20-0531.

Respectfully submitted,

Date: November 20, 2002  
Reg. No.: 33,497

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Amendment and Response  
U.S.S.N.: 08/922,263  
Page 11 of 18

**Marked-up Copy of Amendment to Claims**

32. (Four times Amended) A method of generating light inside a mammalian body, comprising the steps of:

H1 | placing at least a distal portion of an interventional device inside a mammalian body, the distal device portion comprising a fluorescent light source, the light source comprising a rigid gas-containing tube;

electrically connecting the fluorescent light source through a proximal end of the interventional device to an energy source; and

causing the light source to generate a fluorescent light inside the body.

H2 | 39. (Twice Amended) The method of claim 38 wherein the polymeric stent comprises an ultraviolet curable epoxy or an adhesive material.

H3 | 47. (Four times Amended) A method of generating light inside a mammalian body, comprising the steps of:

placing at least a distal portion of an interventional device light inside a mammalian body, the distal device portion comprising an incandescent lamp, the incandescent lamp comprising a housing, a pair of electrodes inside the housing and an oxidizing filament connecting the pair of electrodes, the housing being filled with a pre-selected gas capable of generating light of a predetermined color;

electrically connecting the incandescent lamp through a proximal end of the interventional device to an energy source; and

causing the incandescent lamp to generate short duration, high intensity light waves of the predetermined color for a medical purpose.

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SHEET 1 OF 3

<b>FORM PTO - 1449</b>				<b>ATTY DOCKET NO.: BSC-011</b>					
<b>INFORMATION DISCLOSURE STATEMENT</b>				<b>APPLICANT: Crowley</b>					
				<b>SERIAL NO.: Not yet assigned</b>					
				<b>FILING DATE: herewith</b>					
<b>U.S. PATENT DOCUMENTS</b>									
EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CL ASS	SUB CLASS	FILING DATE IF APPROPRIATE		
	AA	2,002,559	05/28/35	Wappler	174	39	04/13/32		
	AB	2,583,937	01/29/52	Fossati	128	4	09/09/47		
	AC	3,176,114	03/30/65	Kneisley	219	223	07/16/62		
	AD	4,233,493	11/11/80	Nath	219	354	12/09/77		
	AE	4,289,966	09/15/81	Roberts	250	378	04/10/80		
<b>FOREIGN PATENT DOCUMENTS</b>									
EXAM. INIT.		DOCUMENT NUMBER	DATE	COUNTRY CODE	CLASS	SUB CLASS	FILING DATE	ABSTRACT ONLY	ENGLISH LANG Y/N
	BA	WO 90/04352	05/03/90	WO			10/27/89		Y
	BB	WO 94/13191	06/23/94	WO			12/09/93		Y
	BC	WO 96/05693	02/22/96	WO			08/09/95		Y
	BD	WO 97/01985	01/23/97	WO			07/03/95		Y
	BE	02-223828	09/06/90	JP			02/23/89		N
	BF	08-83569	03/26/96	JP			09/09/94		N
	BG	07-289506	11/07/95	JP			04/22/94		N
<b>OTHER ART, JOURNAL ARTICLES, ETC.</b>									
EXAM. INIT.	<b>OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)</b>								
	CA	Petrofsky, "In Vivo Measurement of Brain Blood Flow in the Cat," <i>IEEE Transactions on Biomedical Engineering</i> , Vol. BME-26, No. 8: 441-445 (August, 1979).							
	CB	Internet Publication, <a href="http://iqc.ethz.ch/~fpsr/Final_Report/M4/M4PO4-1.html">http://iqc.ethz.ch/~fpsr/Final_Report/M4/M4PO4-1.html</a>							
<b>EXAMINER</b>					<b>DATE CONSIDERED</b>				

SHEET 2 OF 3

<b>FORM PTO - 1449</b>				<b>ATTY DOCKET NO.: BSC-011</b>					
<b>INFORMATION DISCLOSURE STATEMENT</b>				<b>APPLICANT: Crowley</b>					
				<b>SERIAL NO.: Not yet assigned</b>					
				<b>FILING DATE: herewith</b>					
<b>U.S. PATENT DOCUMENTS</b>									
EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE		
	AF	4,340,307	07/20/82	Diamond <i>et al.</i>	356	418	07/07/80		
	AG	4,472,728	09/18/84	Grant <i>et al.</i>	357	30	02/19/82		
	AH	4,541,272	09/17/85	Bause	73	118	05/13/83		
	AI	4,548,505	10/22/85	Ono	356	445	04/19/82		
	AJ	4,672,972	06/16/87	Berke	128	653	09/10/86		
	AK	4,718,417	01/12/88	Kittrell <i>et al.</i>	128	303.1	03/22/85		
	AL	4,872,458	10/10/89	Kanshira <i>et al.</i>	128	401	09/08/87		
	AM	4,882,623	11/21/89	Uchikubo	358	98	08/11/88		
	AN	4,902,896	02/20/90	Fertig, Sr. <i>et al.</i>	290	348	05/08/87		
	AO	4,928,172	05/22/90	Uchida <i>et al.</i>	358	98	09/15/88		
	AP	4,938,602	07/03/90	May <i>et al.</i>	356	435	03/27/89		
	AQ	4,981,138	01/01/91	Deckelbaum <i>et al.</i>	128	665	06/30/88		
	AR	5,001,556	03/19/91	Nakamura <i>et al.</i>	358	98	03/22/90		
<b>FOREIGN PATENT DOCUMENTS</b>									
EXAM. INIT.		DOCUMENT NUMBER	DATE	COUNTRY CODE	CLASS	SUB CLASS	FILING DATE	ABSTRACT ONLY	ENGLISH LANG Y/N
	BH	07-88105	04/04/95	JP			09/22/93		N
<b>OTHER ART, JOURNAL ARTICLES, ETC.</b>									
EXAM. INIT.	OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)								
<b>EXAMINER</b>					<b>DATE CONSIDERED</b>				

SHEET.3 OF 3

<b>FORM PTO - 1449</b>				<b>ATTY DOCKET NO.: BSC-011</b>			
<b>INFORMATION DISCLOSURE STATEMENT</b>				<b>APPLICANT: Crowley</b>			
				<b>SERIAL NO.: Not yet assigned</b>			
				<b>FILING DATE: herewith</b>			
<b>U.S. PATENT DOCUMENTS</b>							
EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AS	5,009,655	04/23/91	Daignault, Jr. <i>et al.</i>	606	007	05/24/89
	AT	5,021,888	06/04/91	Kondou <i>et al.</i>	358	213.11	12/15/88
	AU	5,042,494	08/27/91	Alfano	128	665	12/04/89
	AV	5,045,056	09/03/91	Behl	604	49	09/15/89
	AW	5,056,503	10/15/91	Nagasaki <i>et al.</i>	128	6	02/28/91
	AX	5,116,759	05/26/92	Klainer <i>et al.</i>	435	288	06/27/90
	AY	5,166,755	11/24/92	Gat	356	419	05/23/90
	AZ	5,187,572	02/16/93	Nakamura <i>et al.</i>	358	98	10/30/91
	AAA	5,206,174	04/27/93	Gehrke <i>et al.</i>	436	58	09/24/92
	AAB	5,233,621	08/03/93	Lawandy	372	22	10/09/92
	AAC	5,242,437	09/07/93	Everett <i>et al.</i>	606	15	06/07/89
	AAD	5,262,645	11/16/93	Lambert <i>et al.</i>	250	339	09/03/91
	AAE	5,309,907	05/10/94	Fang <i>et al.</i>	128	633	08/26/92
	AAF	5,351,532	10/04/94	Hager	73	153	10/08/92
	AAG	5,377,676	01/03/95	Vari <i>et al.</i>	128	634	03/30/93
	AAH	5,405,369	04/11/95	Selman <i>et al.</i>	607	88	01/25/94
	AAI	5,417,207	05/23/95	Young <i>et al.</i>	128	634	12/06/93
	AAJ	5,445,608	08/29/95	Chen <i>et al.</i>	604	20	08/16/93
	AAK	5,461,229	10/24/95	Sauter <i>et al.</i>	250	253	06/06/94
	AAL	5,467,767	11/21/95	Alfano <i>et al.</i>	128	665	08/27/93
	AAM	5,542,928	08/06/96	Evans <i>et al.</i>	604	113	06/27/94
	AAN	5,571,152	11/05/96	Chen <i>et al.</i>	607	92	05/26/95
	AAO	5,131,398	07/21/92	Alfano <i>et al.</i>	128	665	01/22/90
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			

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SHEET 1 OF 1

<b>FORM PTO - 1449</b>				<b>ATTY DOCKET NO.: BSC-011 (1002/19)</b>					
<b>SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</b>				<b>APPLICANT: Crowley</b>					
				<b>SERIAL NO.: 08/922,263</b>					
				<b>FILING DATE: 09/02/97</b>		<b>GROUP:</b>			
<b>U.S. PATENT DOCUMENTS</b>									
<b>EXAM INIT.</b>		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>NAME</b>	<b>CLASS</b>	<b>SUB CLASS</b>	<b>FILING DATE IF APPROPRIATE</b>		
	AAP	5,647,368	07/15/97	Zeng et al.	128	665			
<b>FOREIGN PATENT DOCUMENTS</b>									
<b>EXAM INIT.</b>		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>COUNTRY CODE</b>	<b>CLASS</b>	<b>SUB CLASS</b>	<b>FILING DATE</b>	<b>ABSTRACT ONLY</b>	<b>ENGLISH LANG Y/N</b>
	BI	9-192138	07/29/97	JP			01/16/96		Y
	BJ	EP 0 792 618 A1	09/03/97	EP			01/31/97		Y
<b>OTHER ART, JOURNAL ARTICLES, ETC.</b>									
<b>EXAM. INIT.</b>	<b>OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)</b>								
<b>EXAMINER</b>					<b>DATE CONSIDERED</b>				

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SHEET 1 of 2

<b>FORM PTO - 1449</b>				<b>ATTY DOCKET NO.:</b> BSC-011 (1002/19)					
<b>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</b>				<b>APPLICANTS:</b> Crowley					
				<b>SERIAL NO.:</b> 08/922,263					
				<b>FILING DATE:</b> September 2, 1997					
				<b>GROUP:</b> 3306					
<b>U.S. PATENT DOCUMENTS</b>									
EXAM. INT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE		
	AAQ	4,274,706	06/23/81	Tangonan	350	96.19			
	AAR	5,106,387	04/21/92	Kittrell et al.	606	15			
	AAS	5,127,407	07/07/92	Tan	128	633			
	AAT	5,213,569	5/25/93	Davis	604	22			
	AAU	5,304,173	4/19/94	Kittrell et al.	606	15			
	AAV	5,318,024	06/07/94	Kittrell et al.	128	634			
	AAW	5,350,375	9/27/94	Deckelbaum et al.	606	7			
	AAX	5,398,844	03/21/95	Zaslavsky et al.	221	208			
	AAZ	5,402,792	04/04/95	Kimura	128	663.01			
	AAZ	5,556,421	09/17/96	Prutchi et al.	607	36			
<b>FOREIGN PATENT DOCUMENTS</b>									
EXAM INT.		DOCUMENT NUMBER	DATE	COUNTRY CODE	CLASS	SUB CLASS	FILING DATE	ABSTRACT ONLY	ENGLISH LANG Y/N
	BK	888727	07/08/49	DE					N
	BL	30 23 130	01/21/82	DE					N
	BM	40 05 743	08/29/91	DE					N
	BN	195 12 518	10/05/95	DE					N
	BO	0 314 937	10/07/88	EP					Y
	BP	0 629 380	12/21/94	EP					Y
	BQ	WO 91/15151	10/17/91	PCT					Y
	BR	WO 92/15253	09/17/92	PCT					Y
	BS	WO 96/07451	03/14/96	PCT					Y
	BT	WO 96/24406	08/15/96	PCT					Y

SHEET 2 OF 2

FORM PTO - 1449		ATTY DOCKET NO.: BSC-011 (1002/19)
SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT		APPLICANTS: Crowley
		SERIAL NO.: 08/922,263
		FILING DATE: September 2, 1997
		GROUP: 3306
OTHER ART, JOURNAL ARTICLES, ETC.		
EXAM. INIT.	OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)	
	CC	Coleman et al., "Acoustic Emission and Sonoluminescence Due to Cavitation at the Beam Focus of an Electrohydraulic Shock Wave Lithotripter", <u>Ultrasound in Med. Biol.</u> Vol. 18, No. 3, pp. 267-281, 1992.
	CD	Vona et al., "A Test of the Hypothesis that Cavitation at the Focal Area of an Extracorporeal Shock Wave Lithotripter Produces Far Ultraviolet and Soft X-Ray Emissions", <u>J. Acoust. Soc. Am.</u> Vol. 98 (2), pp. 706-711, August 1995.
	CE	Cothren et al., "Gastrointestinal Tissue Diagnosis by Laser-Induced Fluorescence Spectroscopy at Endoscopy" <u>Gastro Endoscopy</u> , Vol. 36 No. 2, pp. 105-111, 1990.
	CF	Kapadia et al., "Laser-induced fluorescence spectroscopy of human colonic mucosa", <u>Gastroenterology</u> , Vol. 29, pp. 150-157, 1990.
	CG	Lilge et al., "Light Induced Fluorescence Spectroscopy at Endoscopy", <u>Presented at the 10th Asian Pacific Congress of Gastroenterology</u> , 1996.
	CH	Huang et al., "Fluorescence Diagnosis of Gynecological Cancerous and Normal Tissues", <u>SPIE</u> , Vol. 2135, pp. 42-44, 1994.
	CI	Anidjar et al., "Ultraviolet Laser-Induced Autofluorescence Distinction Between Malignant and Normal Urothelial Cells and Tissues", <u>Journal of Biomedical Optics</u> , Vol. 1 No.3, pp. 335-341, 1996.
	CJ	Crowley et al., "Ultrasound Guided Therapeutic Catheters: Recent Developments and Clinical Results", <u>The International Journal of Cardiac Imaging</u> , Vol. 6, pp. 145-156, 1991.
	CK	Mcindi, J. Implantable Telemetry in Biomedical Research, <u>Electronics Engineers' Handbook</u> , McGraw-Hill 1989, pp 26-41 - 25-53.
	CL	Ko, Biomedical Sensors and Actuators, <u>Electronics Engineers' Handbook</u> , McGraw-Hill 1989, pp 26-53 - 26-68.
	CM	Kopp et al., "Stay Tuned: Photonic Filters Color Your World", <u>Photonics Spectra</u> , March 1997, pp. 125-129.
EXAMINER		DATE CONSIDERED

426JIS1002/19.521370-1